

REMARKS

The Abstract has been amended such that it is in proper form.

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claims 1 and 10 have been cancelled, while claim 3 has been made a proper independent claim and includes the limitations of cancelled claim 1. Further, claims 5-9 have each been made proper singularly dependent claims, each depending from claim 3. In addition, claim 2 has been made depending from claim 3. Finally, the claims have been amended for clarity.

The Examiner has rejected claims 1-10 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,581,539 to Horie et al.

The Horie et al. patent discloses an optical recording medium, in which a substrate (1) having grooves formed therein is followed by a stack having a protective layer (2), a recording layer (3), a second protective layer (4), and a reflective metal layer (5).

The subject invention relates to an optical data storage medium having a substrate with an entrance face through which a focused radiation beam having a wavelength λ may enter the storage medium. The substrate includes a guide groove formed in a side of the substrate opposite from the entrance face. The storage medium further includes a recording stack having a write-once recording layer adjacent to the guide groove side of the substrate, and a

non-metallic substantially transparent layer adjacent to the write-once recording layer.

According to independent claim 3, in the optical storage medium of the subject invention, "the wavelength λ is approximately 655 nm".

As noted in MPEP § 2131, it is well-founded that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The Examiner has indicated that this limitation is found in Horie et al. "groove depth wavelength 633, see col 17 line 64-67 and col 29 line 66-67".

Applicant submits that the Examiner is mistaken. In particular, Horie et al., at col. 17, lines 64-67, specifically states "A method of measuring the groove width and the groove depth is to be described. The measurement is conducted by irradiating a He-Ne laser beam (wavelength: 633 nm) from the side of the substrate not provided with grooves, ..." As such, this laser beam is not a recording/reading radiation beam as claimed in claim 3, for which the wavelength λ relates. The only reading/recording

radiation beam wavelengths noted in Horie et al. are 680 nm and 780 nm.

Applicant submits that the particular wavelength is important in that it is then used to determine the thickness of the different layers as well as the depth of the guide groove.

Claim 6 recites the limitation "the recording layer has a thickness d_{RG} and $145 \text{ nm} \leq d_{RG} * n_R < 245 \text{ nm}$, and the non-metallic layer mainly comprises SiO_2 and has a thickness d_T in the range $5 \text{ nm} \leq d_T \leq 120 \text{ nm}$ ".

The Examiner has indicated that this is disclosed in Horie et al. "on the substrate were formed a layer at 120nm, a layer at 30nm, a layer at 20nm and a layer at 200nm, col 32 line 8-14".

It should be apparent that these layers are, respectively, the first protective layer (2), the recording layer (3), the second protective layer (4), and the reflective metal layer (5). However, Applicant would like to point out that there is no discrimination in Horie et al. of the recording layer in the groove and outside of the groove, as distinguished from the subject invention. Further, Applicant submits that Horie et al. neither discloses nor suggests the refractive index of the recording layer. In fact, the only refractive index disclosed in Horie et al. is of the substrate at col. 26, line 65, where $n=1.56$. If this were then to be used in the relationship of claim 6, then surely the recording layer thickness of 30 nm is not correct.

Claim 9 modifies the invention of claim 3 by adding an additional substrate and an additional recording stack.

The Examiner indicates that all of these limitations are disclosed in the Abstract of Horie et al., and then refers to US2001/0016242 to Miyamoto et al. for support.

Applicant submits that while Miyamoto et al. discloses multiple recording stacks, this could not be done with Horie et al., in that the metallic reflective layer (5) would prevent the optical radiation beam from progressing past the first recording stack to the second recording stack. As such, one could not incorporate the teachings of Miyamoto et al. into Horie et al.

In view of the above, Applicant believes that the subject invention, as claimed, is neither anticipated nor rendered obvious by the prior art, and as such, is patentable thereover.

Applicant believes that this application, containing claims 2-9, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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